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ABSTRACT

A cellular terminal transmits a request that requires authentication procedure triggering to a cellular network and responsively receives from the cellular network an authentication request message with an indication of a selected cryptographic algorithm from a group of a plurality of cryptographic algorithms. The cellular terminal attempts to decode the authentication request message to a decoded authentication request according to the selected cryptographic algorithm and based on a shared secret known by the cellular terminal and a network operator of the cellular terminal whether the attempt was successful and the cellular terminal supports the selected cryptographic algorithm in authenticating to the cellular network; and in case the determination is positive, based on the decoded authentication request, the shared secret and the selected cryptographic algorithm, produces and encrypts an authentication response message and transmits the authentication response message to the cellular network; and in case the determination is not positive, produces and sends to the cellular network a failure report.

